

Maryland Historical Trust

Maryland Inventory of Historic Properties number: BA-2655

Name: B-0177/Thistle Blower Stream

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridge received the following determination of eligibility.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <u> X </u>	Eligibility Not Recommended <u> </u>
Criteria: <u> A </u> <u> B </u> <u> C </u> <u> D </u>	Considerations: <u> A </u> <u> B </u> <u> C </u> <u> D </u> <u> E </u> <u> F </u> <u> G </u> <u>None</u>
Comments: _____	

Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u> 3 April 2001 </u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u> 3 April 2001 </u>

grm

MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST

MHT NO. BA-2655

NAME AND SHA NO.: B-0177

LOCATION

Road Name and Number: Thistle Road over stream

City/Town: Catonsville X vicinity

County: Baltimore

Ownership: State X County Municipal Other

Bridge projects over: Road Railway X Water Land

Is bridge located within designated district?: yes X no
 NR listed district NR determined eligible district
 locally designated other
Name of District

BRIDGE TYPE

- Timber Bridge
 Beam Bridge Truss-Covered Trestle Timber-and-Concrete
- Stone Arch Bridge
- Metal Truss Bridge
- Moveable Bridge
 Swing Bascule Single Leaf Bascule Multiple Leaf
 Vertical Lift Retractable Pontoon
- Metal Girder
 Rolled Girder Rolled Girder Concrete Encased
 Plate Girder Plate Girder Concrete Encased
- Metal Suspension
- Metal Arch
- Metal Cantilever
- X Concrete
 Concrete Arch Concrete Slab X Concrete Beam Rigid Frame
 Other Type Name

DESCRIPTION

Describe the Setting:

Bridge B-0177 carries Thistle Road over an unnamed stream in southern Baltimore County near its boundary with Howard County. Thistle Road runs north and south, while the stream flows east to west under the northern span of the bridge. Gravel and bedrock block the stream's passage through the south end of the structure. Located in the Piedmont physiographic province, a region characterized by variegated topography created by rivers and streams cutting through the valley, the bridge is surrounded by wooded land. The bridge stands northwest and outside of the boundaries of Patapsco State Park.

**Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)**

State Highway Administration records describe Bridge B-0177 as a double-span, concrete tee-beam structure skewed 34 degrees, with a total bridge length of 42'. Each span measures 16' long. The 30' wide roadway carries two lanes of traffic. The low, solid concrete parapets and the concrete slab are integrated with the girders. Steel W-beam guardrails are attached to the ends of the parapets. The substructure consists of stone and masonry abutments and wing walls; a stone and masonry pier supports the center of the bridge.

Details of the bridge's present condition from a 1993 inspection report include large cracks and spalling with exposed reinforcing steel in the east parapet, and two cracks in the west parapet. The report also mentions the presence of cracking and soft mortar joints in the abutments.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Nearly one-quarter (26) of that total were double-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

According to Baltimore County inspection reports, this bridge was widened since its original construction. The report notes that the eastern parapet is older, indicating that the additional width was added to the western side. However, the report does not indicate when this alteration was undertaken.

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HISTORY

When Built: 1920

Why Built: Statewide road improvement programs and local transportation needs.

Who Built: Unknown

Who Designed: Unknown

Why Altered: Unknown

Was this bridge built as part of an organized bridge building campaign?: No.

This bridge was built during the Good Roads Movement era but was not one of the primary corridors slated for improvement.

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

☐ A (Events) ☐ B (Person) ☐ C (Engineering/Architectural Character)

Was this bridge constructed in response to significant events in Maryland or local history?

In many ways, Baltimore County was a leader in modern bridge construction, affecting the materials and design of concrete structures throughout the state. Baltimore was the first of the state's counties to hire a professional engineer to oversee construction and maintenance of its roads. Early Maryland Geological Survey and State Road Commission Reports relate that the county began to build concrete bridges and culverts in 1901, and that by 1903 had constructed many good roads and replaced old wooden bridges with permanent structures. The "progressive work" by the Baltimore county engineer in 1903 was evidenced by the first reinforced concrete highway bridge built in the state. The method of reinforcing concrete using steel rods embedded in concrete beams allowed the girders to withstand heavy loads with no steel surface exposed to air, thereby significantly reducing maintenance costs.

A 1906 state highway report stated that improvement projects begun in 14 counties included the widening, straightening, and/or grading of many existing roads, as well as the construction of many new bridges to carry these rebuilt roads. The rapid increase of automobile, truck, and bus traffic during the early decades of the twentieth century prompted the replacement of old bridges with new, modern concrete structures. During the 1920s, the State Road Commission embarked upon a plan to both improve the safety and comfort of the primary roads while also building up the secondary and farm-to-market road system. The establishment of district engineering offices during the 1910s, the creation of a separate bridge department within the State Road Commission in 1920, and the development of standard statewide specifications for bridges undoubtedly aided the construction of nearly 750 concrete bridges and culverts between 1902 and 1929 in Baltimore

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County. Finally, the elimination of toll roads, many of which ran through the county and terminated in Baltimore city, may have induced the improvement of additional county roads in an effort to provide unlimited access through the county.

When the bridge was built, and/or given a major alteration, did it have a significant impact on the growth and development of the area?

No, the construction of this bridge did not play an active role in the growth or development of this portion of Baltimore County.

Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, this bridge is not located within an area which is eligible for historic district designation.

Is the bridge a significant example of its type?

No. Although the replacement of the western parapet appears to incorporate materials compatible with the original structure, the use of stone for the substructure does not conform to concrete beam bridges constructed during the 1920s.

Does the bridge retain integrity of the important elements described in the Context Addendum?

No. The bridge retains integrity of the majority of its original super- and substructure elements. However, according to the description of concrete beam bridges in the historic context, the primary character defining elements of a concrete tee-beam bridge's substructure generally consist of concrete abutments, wing walls, and piers. Therefore, the stone abutments, wing walls, and pier do not conform to this standard. Further, depending upon the date and materials used in the widening and subsequent replacement of the western parapet, this alteration may be contribute to the historic character of the bridge.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer, and why?

No, this bridge is not a significant example of the work of the manufacturer, designer, and/or engineer. This bridge was most likely built to standard state specifications, which corresponded to the structure's span length and year.

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Should this bridge be given further study before significance analysis is made, and why?

No, this bridge should not receive further study.

BIBLIOGRAPHY

Baltimore County Department of Public Works

1993 Bridge inspection reports. Located in the files of the Engineering Bureau, Baltimore County Department of Public Works, Towson, Maryland.

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Johnson, A.N.

1903 *Third Report on the Highways of Maryland (1902-1903)*. The Johns Hopkins Press, Baltimore.

LeViness, Charles T.

1958 *A History of Road Building in Maryland*. State Roads Commission of Maryland, Baltimore.

P.A.C. Spero and Company and Louis Berger and Associates, Inc.

1994 *Historic Bridges in Maryland: Historic Context Report*. Prepared for Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore.

State Roads Commission of Maryland

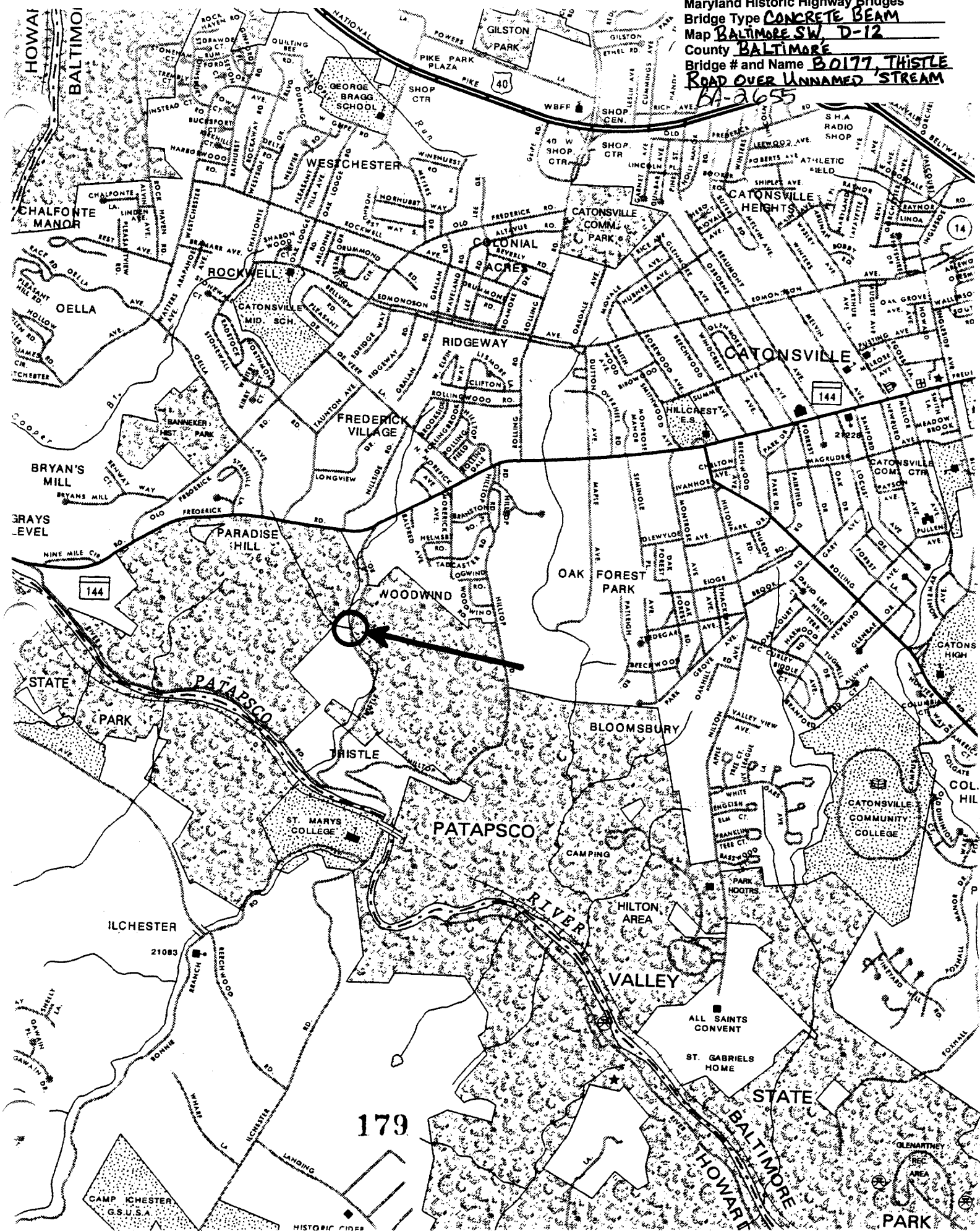
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SURVEYOR INFORMATION

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Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map BALTIMORE SW, D-12
County BALTIMORE
Bridge # and Name B0177, THISTLE ROAD OVER UNNAMED 'STREAM'
BA-2655





WEIGHT
LIMIT
25T
23T
20T

Inventory # BA-2655

Name 0017- THISTLE RD OVER STREAM

County/State BALTIMORE COUNTY/MO

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description SOUTH APPROACH LOOKING
NORTHWEST

Number 17 of 374



Inventory # BA-2655

Name BD177- THISTLE RD OVER STREAM

County/State BALTIMORE COUNTY MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SWA

Description EAST ELEVATION LOOKING WEST

Number 28 of 39 4



Inventory # BA-2655

Name BO177-THISTLE RD OVER STREAM

County/State BALTIMORE COUNTY/MD

Name of Photographer DAVE DIEHL

Date 1/95


Location of Negative SHA

Description WEST ELEVATION LOOKING EAST

Number 3 of 374



WEIGHT
LIMIT

 15T

 23T

 40T

Inventory # BA-2655

Name BWI 77-THISTLE ROWER STREAM

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description NORTH APPROACH LOOKING
SOUTHEAST

Number 4 of 4
~~10~~ ~~37~~